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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/694,392	10/28/2003	Arie Glazer	Q77903	9177

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EXAMINER	
ALANKO, ANITA KAREN	
ART UNIT	**PAPER NUMBER**
1765	

DATE MAILED: 10/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/694,392	GLAZER ET AL.	
	Examiner	Art Unit	
	Anita K. Alanko	1765	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *7/7/06 and 7/31/06 amdt*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *56-63,65-75,77,78,111-116 and 126-136* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *56-63,65-75,77,78,111-116 and 126-136* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 65 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 65 depends from a cancelled claim, and in therefore indefinite.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 56-63, 65-66, 69-70, 72-75, 77-78, 111-113, 115-116, 126-136 are rejected under 35 U.S.C. 102(b) as being anticipated by Zhang (US 5,938,839).

Zhang discloses a method of fabricating thin film transistors, comprising:

forming at least one semiconductive film 113 on a substrate 111 (Fig.5, col.11, lines 19+);

immersing said substrate in a dopant (col.12, lines 59-60; col.13, lines 1-6); and

delivering a laser beam 123 (apparatus shown in Fig.9) to a plurality of independently selectable locations (openings in mask 114,115) on said substrate to induce a doping reaction between said dopant and said semiconductive film at said independently selectable locations 131,133 (Fig.7-8).

Further, as to claims 63, 75 and 111, Zhang discloses in a different embodiment (Fig.1) that instead of using a mask on the substrate, that the mask 16 (with mask pattern 10) may be separated (col.7, lines 64-65) from the substrate to form a plurality of sub-beams (the pattern in the laser beam, col.8, lines 12-13), locations of which are selectable by relatively moving the mask and the substrate (by XYZ stage 14). As broadly interpreted, the locations are independently selectable since the mask openings (presumably formed by photolithography) are also independently selectable- they are selected to form the desired pattern on the substrate, either N- or P- type regions that are isolated from one another.

As to amended claims 56, 111 and 126, the limitation of independently tiltable beam steering elements is not taught by Zhang. However, this is an apparatus limitation. The same result is achieved by selecting openings in the masks – the locations are independently selected by choosing where in the mask the openings are. Apparatus limitations, unless they affect the process in a manipulative sense, may have little weight in process claims. *In re Tarczy-Hornoch* 158 USPQ 141, 150 (CCPA 1968); *In re Edwards* 128 USPQ 387 (CCPA 1961); *Stalego v. Heymes* 120 USPQ 473, 478 (CCPA 1959); *Ex parte Hart* 117 USPQ 193 (PO BdPatApp 1957); *In re Freeman* 44 USPQ 116 (CCPA 1940); *In re Sweeney* 72 USPQ 501 CCPA 1947). In this case, since the same result is achieved using either a mask or an independently tiltable beam steering element, the apparatus limitations do not affect the process in a manipulative sense, are give little weight, and the claimed invention is anticipated.

As to claims 69-70, as broadly interpreted, the mask 16 modulates the energy characteristic of the laser beam. Also, Zhang discloses that arrays (and each TFT comprises

different doping types) are fabricated, thus different locations have first and second modulated energy characteristics (col.13, lines 53-64).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 67-68, 71 and 113-114 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhang (US 5,938,839).

The discussion of Zhang from above is repeated here.

As to claims 71 and 114, Zhang does not disclose the pulse repetition rate. However, since the same steps are performed with the same results of doping to form the same device as in the instant invention, the characteristics of the laser are expected to be similar to that of the

instant invention. Examiner takes official notice that one skilled in the art of lasers knows that the pulse repetition rate affects the efficacy of the laser. Thus, the pulse repetition rate appears to reflect a result effective variable. It would have been obvious to one with ordinary skill in the art to use the cited pulse repetition rate in the method of Zhang because the thickness appears to reflect a result-effective variable which can be optimized. See MPEP 2144.05 IIB.

As to claims 67-68 and 113, Zhang fails to disclose that the laser beam is delivered to locations that vary in size and spacing. It is obvious that in forming devices, features vary in size and spacing. It would have been obvious to one with ordinary skill in the art to deliver a laser as cited in the method of Zhang because devices usually have different sizes and spacings of features, which is within the level of skill of one in the art to create by varying the openings in the mask.

Response to Amendment

The rejection of claims 56-78 under 35 U.S.C. 112, second paragraph is withdrawn since the claims have been amended to recite doping of a semiconductive film.

The rejection of claims 64 and 76 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhang (US 5,938,839) in view of Downey (US 2003/0194509 A1) is withdrawn since those claims have been cancelled.

The rejection over Gross (with a 102(e) date of 2/25/02) is withdrawn since Gross is not an invention to another, but rather is the same inventor as the instant invention.

The claims remain rejected over Zhang. Apparatus limitations are given little weight in process claims.

Response to Arguments

Applicant's arguments filed 7/31/06 and 7/7/06 have been fully considered but they are not persuasive. Examiner acknowledges that masks are not independently tiltable beam steering elements. However, the same result is achieved, as broadly cited, since the laser beam is delivered to multiple locations that are independent of each other. The apparatus limitation does not affect the process in a manipulative sense, for example, the claims do not cite independently tilting the beams by using independently tiltable beam steering elements. Thus, they are given little weight and the invention is anticipated.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anita K. Alanko whose telephone number is 571-272-1458. The examiner can normally be reached on Mon-Fri until 2:30 pm (Wed until 11:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nadine Norton can be reached on 571-272-1465. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Anita K. Alanko

Anita K Alanko
Primary Examiner
Art Unit 1765